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2 **ABSTRACT**
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4 A data processing application uses a translation file to render a visual surface
5 based on underlying structured data. The data processing application provides mapping
6 between nodes associated with the visual surface and nodes associated with the structured
7 data. The mapping is generated in two phases. In a first phase, the data processing
8 application adds mapping functions to the translation file. In the second phase, the data
9 processing application renders the visual surface on the basis of a specific instance of the
10 structured data, and, in the process, executes the mapping functions within the translation
11 file to provide specific pointer information that is embedded amongst the nodes
12 associated with the visual surface. The pointer information points back to specific
13 locations in the structured data, thus providing mapping between the visual surface and
14 the structured data. The structured data can be formed using Extensible Markup
15 Language (XML). The visual surface can be formed using Hypertext Markup Language
16 (HTML). The translation file can be formed using Extensible Stylesheet Language
17 Transformation (XSLT).
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